



**PATENT** 01393-P0074A GSW/TMO

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	Pierre Talbot, et al.
Serial No. 10/667,638	Filing Date: September 22, 2003
Title of Application:	Coconut Mesocarp-Based Biofilter Material And Its Use In A Wastewater Treatment System
Confirmation No. 1107	Art Unit: 1723
Examiner	

Commissioner for Patents Post Office Box 1450 Alexandria, VA 22313-1450

### Information Disclosure Statement by Applicants

As a means of complying with the duty of disclosure set forth in 37 CFR §1.56, Applicants list the following references (copies of the listed patents and papers enclosed).

	U.S. Patent Documents				
Exam. Initials	Class/ Subclass.	Document No.	Date	Name ·	
	210/602	6,620,321 B2	9/03	Festa et al.	
	210/617	US 2002/0134728 A1	9/02	Festa et al	
a	502/404	5,206,206	4/93	Buelna et al.	
	210/150	5,049,265	9/91	Boyd et al.	

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November 1, 2004

Tamara I Millikan





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## Third Supplemental Information Disclosure Statement by Applicants

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Exam. Initials	I I I I I I I I I I I I I I I I I I I			
C	/	2,888,095	11/1956	Perrini et al.

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September 16, 2004

Gregory D. Venuto



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### 2nd Supplemental Information Disclosure Statement by Applicant

Dear Sir:

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U.S. Patent Documents				
Exam. Initials	Class/ Subclass.	Document No.	Date	Name
- C~	210/242.4	4,861,475	8/1989	Peterson
	210/150	5,049,265	9/1991	Boyd et al.
C	427/3	5,106,648	4/1992	Williams et al.
	502/404	5,206,206	5/1993	Buelna et al.
<u></u>	210/611	5,264,129	11/1993	Simpson et al.

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March 22 2004

Gregory D. Venuto



Serial No. 10/667,638

Supplemental Information Disclosure Statement

The listed patents pertain in a general way to the subject matter of the application, but are not necessarily considered to be analogous prior art.

Respectfully submitted,

January 20, 2004

Gene S. Winter, Registration No. 28,352 Todd M. Oberdick, Registration No. 44,268 Attorneys for Applicants ST.ONGE STEWARD JOHNSTON & REENS LLC 986 Bedford Street Stamford, CT 06905-5619 203 324-6155

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3/18/05

Date Considered

Page 2 Serial No. 10/667,638 Information Disclosure Statement

	U.S. Patent Documents				
Exam. Initials.	Class/ Document No. Date		Name		
0	210/238	6,010,626	1/4/2000	D'Agostino	
j	210/671	6,027,652	2/22/2000	Hondroulis, et al	
	210/150	6,033,559	3/7/2000	Bender, et al	
	210/688	6,033,573	3/7/2000	Toles, et al	
	502/404	6,107,242	8/22/2000	Ackerman, et al	
	210/666	6,165,366	12/26/2000	Sarangapani	
	210/195.3	6,174,433	1/16/2001	Futami	
	47/9	6,189,260	2/20/2001	Kusey et al.	
	210/502.1	6,224,768	5/1/2001	Navarre, et al.	
	210/500.25	6,383,386	5/7/2002	Hying, et al.	
	134/7	6,391,120	5/21/2002	Silva	
	210/164	2001/0047955	11/29/1999	Chinn, et al	
	210/767	2002/0008071	1/24/2002	Chinn	
	210/741	2002/0030020	9/10/2001	Moorehead, et al.	
	210/94	2002/0060176	9/27/2001	Mierau, et al.	

	Foreign Patent Documents				
Exam. Initials	Document No.	Date	Country		
$\alpha$	FR2692833	6/30/92	France (with English Abstract)		
	0 348 670	5/26/1989	Europe (with English Abstract)		
	11 291272	4/7/1998	Japan (with English Abstract)		
	57 187003	5/11/1981	Japan (with English Abstract)		
	61220797	3/25/1985	Japan (with English Abstract)		

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	Foreign Patent Documents				
Exam. Initials	Document No.	Date	Country		
	DE 4445440 C1	12/94	Germany-		
	DE 4415963 A1	5/94	Germany		
	DE 19530760 A1	8/95	Germany		

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Respectfully submitted,

November 1, 2004

Gene S. Winter, Registration No. 28,352 Todd M. Oberdick, Registration No. 44,268 Attorneys for Applicants

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	Other Documents
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Ismail. M.R. et al., Effects of Water Availability on Growth, V Relations, Physiological Processes and Yield of Tomatoes Grow Coconut Coir (Cd): Peat Mix Peat in Horticulture/Posters, Bota Physical and Chemical Properties of Peat Products pp. 176-180.	
	Radjagukguk, B. et al. A Comparative Study of Peats and Other Media For Containerized Fore Tree Seedlings
	Bandyopadhyay, Swati, P.M. et al. Transient Behavior Of A Coconut Shell Pyrolyzer: A Mathematical Analysis, 1996 Ind. Eng. Chem. Res 35, Art. 1711, pp. 3347-3355.
	Chweya, J.A. et al. Preliminary Studies on Some Local Materials For Propagation Media, 1978, E. African Agric. For J. 43(4) Art. 1799-pp. 327-333.
	Pillai, C.K.S., et al. A Mechanical Study of the Deterioration of Coconut Leaf Thatch Under Natural and Accelerated Environmental Conditions, 1982, Journal of Materials Science 17, Art. 2124, pp. 2861-2868.
	Satyanarayana, K.G. et al. Structure Property Studies of Fibers From Various Parts of the Coconut Tree, 1982, Journal of Materials Science, Art. 2123, pp. 2453-2462.
	Remison, S.U. et al. Effect of Salinity on nutrient content of the leafs of coconut seedlings; 1988, Plant and Soil 109, C. Kluwer Academic Publishers, pp 135-138.
	Pryce, Suki, Alternatives to Peat, 1991, Professional Horticulture, Vol. 5 pp. 101-106
	Jeganathan, M. Nut Water Analyses As A Diagnostic Tool in Coconut Nutrition Studies, Commun. Soil Sci. Plant Anal., 23 (17-20), pp. 2667-2686.
	Ismail, M.R. et al., Effects of Water Availability On Growth, Water Relations, Physiological Processes And Yield Of Tomatoes Grown in Coconut Coir (CD): Peat Mix, Peat in Horticulture/Posters, Botanical Physical and Chemical Properties of Peat Products, pp. 176-180.
	Handreck, Kevin A., Properties of Coir Dust, And Its Use In the Formulation of Soilless Potting Media, 1993, Commun. Soil Sci. Plant Anal., 24 (3&4) pp. 349-363.
	Meerow, Alan, W. The Potential of Coir (Coconut Mesocarp Pith) as a Peat Substitute in Container Media, 1993, Foliage Digest, Vol. XIV No. 12.

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	Other Documents
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G	Muniswaran, P.K. Ananda et al., Production Of Cellulases From Coconut Coir Pith In Solid State Fermentation, 1993, J. Chem. Tech. Biotechnol. 60, pp. 147-151.
	Meerow, Alan, W. Growth of Two Subtropical Ornamentals Using Coir (Coconut Mesocarp Pith) as a Peat Substitute, 1994, HortScience, (29(12) pp. 1484-1486.
	Coconut By-Product Used As Peat Substitute, September 1997, Biocycle World
	Namasivayam, C. et al. Coirpith, An Agricultural Waste By-Product, For The Treatment Of Dyeing Wastewater, 1994, Elsevier Science Limited, pp. 79-81.
	Ingelmo, F. et al., Use of MSW Compost, Dried Sewage Sludge And Other Wastes As Partial Substitutes For Peat And Soil, 1998, Bioresource Technology. pp. 123-129.
	Konduru, S. et al., Source And Processing Affects Chemical And Physical Properties Of Coir Dust, 1996, HortScience, Vol. 31(4), Poster Session (Abstr. 535-546).
111	Evans, Michael R. et al., Growth Of Bedding Plants In Sphagnum Peat And Coir Dust-Based Substrates, 1996, J. Environ. Hort 14(4) pp.187-190.
	Evans, Michael R. et al., Source Variation In Physical And Chemical Properties Of Coconut Coir Dust, 1996, HortScience 31(6), pp. 965-967.
	Kwon, Kisung et al., Fractionation And Characterization Of Proteins From Coconuts (Cocos Nucifera), 1996, J. Agric. Food Chem 44, pp. 1741-1745.
	Merrow, Alan W., Coir Dust, A Viable Alternative To Peat Moss, January 1997, Greenhouse Product News, pp. 17-21.
,	Satya, Sai P.M. et al., Production of Activated Carbon From Coconut Shell Char In A Fluidized Bed Reactor, 1997, Ind. Eng. Chem, Res. pp. 3625-3630.

Page 4 Serial No. 10/667,638 Information Disclosure Statement

	Other Documents
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Ch	Stamps, Robert H. et al. Growth Of Dieffenbachia Maculata "Camille" In Growing Media Containing Sphagnum Peat Or Coconut Coir Dust, 1997, HortScience 32 (5), pp. 844-847.
	Susuki, S. et al. Compositional And Structural Characteristics Of Residual Biomass From Tropical Plantations, 1998, J. Wood Sci. 44, pp. 40-46.
	Mbah, Benjamin N., Changes In Moisture Retention Properties Of Five Waste Materials During Short-Term Mesophilic Composting, 1998, Compost Science & Utilization, Vol. 6, No. 4, pp. 67-73.
	Zizumbo-Villarrel, Daniel et al., Pattern Of Morphological Variation And Diversity Of Cocos Nucifera (Arecaceae) In Mexico, 1998, American Journal of Botany 85(6), pp. 855-865.
	Martin-Guillon, Ignacio et al., Comments On Production Of Activated Carbon From Coconut Shell Char In A Fluid Bed Reactor, 1999, Ind. Eng. Chem. Res. 38, pp, 1166-1168.
	Tam, Man S. et al, Preparation Of Activated Carbons From Macadamia Nut Shell And Coconut Shell By Air Activation, 1999, Ind. Eng. Chem. Res. pp. 4268-4276.
	Satya Sci, P.M. et al., Rebuttal To Comments On Production Of Activated Carbon From Coconut Shell Char In A Fluidized Bed Reactor, 1999, Ind. Eng. Chem, pp. 1169-1171.
	Eymar, Enrique et al., Continuous Measurement Of Substrate Electrical Conductivity In Container Grown Plants
	Konduru, S. et al., Coconut Husk And Processing Effects On Chemical And Physical Properties Of Coconut Coir Dust, 1999, HortScience 34 (1), pp. 88-90.
	Castillo, M. et al., Determination Of Non-Ionic Surfactants And Polar Degradation Products In Influent And Effluent Water Samples And Sludges Of Sewage Treatment Plants By A Generic Solid-Phase Extraction Protocol, 2000, Analyst 125, pp. 1733-1739.
	Viswanathan, R. et al., Pressure Density Relationships And Stress Relaxation Characteristics Of Coir Pith, 2001, J. Agric Engng. Res. 78 (2), pp. 217-225.
	Huang, Jenn-Wen et al. A Formulated Container Medium Suppressive To Rhizoctonia Damping Off Of Cabbage, 2000, Bot. Bull. Acad. Sin. 41, pp. 49-56.
	Batalon, Juanito T. et al., Optimization Of Coir Dust Compaction Using The Response Surface Methodology Approach, 2001, J. Agric. Engng. Res. 78 (2). Art. 2063, pp. 167-175.

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Other Documents			
Exam. Initials	Description (Author, Title, Date, Pages, etc)		
W	de Kreij, C. et al., Growth of Pot Plants In Treated Coir Dust As Compared To Peat, 2001, Commun. Soil Sci. Plant Anal. 32 (13 & 14), pp. 2255-2265.		

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Respectfully submitted,

March 22, 2004

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Todd M. Oberdick, Registration No. 44,268
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Foreign Patent Documents				
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	302,446	12/1928	GB	
	2127726	12/1972	DE	
	44 45 440 C1	12/1995	DE (with English abstract)	
	195 30 760 A1	2/1996	DE (with English abstract)	
	44 15 963 A1	9/1995	DE (with English abstract)	
1	WO 02/26352 A1	4/2002	PCT	

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$\mathcal{C}_{\sim}$	210-23	4,160,727	7/10/1979	Harris, Jr.	
	549/349	5,274,129	12/28/1993	Natale, et al.	
	210/502.1	5,750,026	5/12/1998	Gadkaree, et al.	
1	210/85	5,868,924	2/9/1999	Nachtman, et al.	

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/	Linda A. Ferranti



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